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Search Results - Record(s) 11 through 20 of 21 returned.

☐ 11. Document ID: US 20030079877 A1

L7: Entry 11 of 21 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030079877
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030079877 A1

TITLE: In situ thermal processing of a relatively impermeable formation in a reducing environment

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively low permeability formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw Desc | Image

☐ 12. Document ID: US 20010016176 A1

L7: Entry 12 of 21 File: PGPB Aug 23, 2001

PGPUB-DOCUMENT-NUMBER: 20010016176
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010016176 A1

TITLE: Sterilization process without sterile rinse

PUBLICATION-DATE: August 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lin, Szu-Min	Laguna Hills	CA	US	
Jacobs, Paul Taylor	Bicknell	CA	US	

US-CL-CURRENT: 422/33; 422/28, 422/292, 422/295, 422/297

ABSTRACT:

An apparatus for sterilizing or disinfecting a device has a chamber, a source of sterilant or disinfectant and ports for admitting and exhausting the sterilant or disinfectant but lacks a source of sterile rinse. A related method similarly lacks the step of rinsing with a sterile solvent yet leaves the device essentially free of the sterilant or disinfectant. Preferably the sterilant or disinfectant is removed from the device by vaporizing it and drawing it out of the chamber.

☐ 13. Document ID: US 6423266 B1

L7: Entry 13 of 21 File: USPT Jul 23, 2002

US-PAT-NO: 6423266
DOCUMENT-IDENTIFIER: US 6423266 B1

TITLE: Special container for cleaning or sterilizing lumen devices

DATE-ISSUED: July 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Choperena; Alfredo M.	San Juan Capistrano	CA		
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/294, 422/297, 422/300

ABSTRACT:

The invention is directed to a method and an apparatus for cleaning or sterilizing a device having a lumen. The method comprises the steps of: a) providing a container having at least one interface separating the container into two or more compartments; b) placing the device across the interface with one open end of the device in one of the compartments and another open end in another compartment; and c) adjusting the interface to at least partially seal around the device, and generating a flow of a cleaning solution, rinse solution, or chemical germicide through the lumen to clean or sterilize the inner surface of the device.

32 Claims, 32 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 19

☐ 14. Document ID: US 6203756 B1

L7: Entry 14 of 21 File: USPT Mar 20, 2001

US-PAT-NO: 6203756
DOCUMENT-IDENTIFIER: US 6203756 B1

TITLE: Integrated cleaning sterilization process

DATE-ISSUED: March 20, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/300, 422/31

ABSTRACT:

A method for cleaning and sterilizing a medical device comprises the steps of: a) placing the device into a container, b) cleaning the device with a cleaning solution, c) rinsing the device with rinse solution, d) treating the device with a liquid sterilant, e) vaporizing the liquid sterilant in the container thereby simultaneously sterilizing and drying the device, and providing a sterile, dry product without further rinsing. The method further comprises retaining a predetermined amount of the liquid sterilant in the container prior to step e). Step e) can be conducted under a diffusion restricted environment, or by reducing pressure to a first predetermined pressure followed by further reducing the first pressure to a predetermined second pressure, or at controlled pump down rate.

27 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments

KWIC | Draw Desc | Image

☐ 15. Document ID: US 6187266 B1

L7: Entry 15 of 21 File: USPT Feb 13, 2001

US-PAT-NO: 6187266
DOCUMENT-IDENTIFIER: US 6187266 B1

TITLE: Integrated cleaning/sterilization process with lumen devices

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/300, 422/31

ABSTRACT:

A method for cleaning and sterilizing a medical device having a lumen with at least two open ends comprises the steps of: a) providing a container having at least one enclosure separated from the container by an interface, b) placing the device into the container and enclosure across the interface in such a way that one end of the lumen of the device is located in the container and the other end in the enclosure, c) generating a flow of a cleaning solution through the lumen to clean the inner surface of the lumen, d) generating a flow of rinse solution through the lumen to rinse the

inner surface of the lumen, e) treating the device with a liquid sterilant, f) vaporizing the liquid sterilant in the container or enclosure thereby simultaneously sterilizing and drying the device, and providing a sterile, dry product without further rinsing. In the method, step f) can be conducted under a diffusion restricted environment, or by reducing pressure to a first predetermined pressure followed by further reducing the first pressure to a predetermined second pressure, or at controlled pump down rate. The method further comprises retaining a predetermined amount of the liquid sterilant in the container and enclosure prior to step f).

28 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 16. Document ID: US 6015529 A

L7: Entry 16 of 21 File: USPT Jan 18, 2000

US-PAT-NO: 6015529
DOCUMENT-IDENTIFIER: US 6015529 A

TITLE: Tray/container system for cleaning/sterilization processes

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/28; 422/292, 422/295, 422/297, 422/300, 422/33

ABSTRACT:

A method for cleaning/sterilizing a medical device with a lumen comprises the steps of: a) providing a container having one enclosure and one openable and closeable interface separating the container and the enclosure, b) placing the device on a tray, c) placing the tray into the container and enclosure so that one end of the device and a portion of the tray are located in the container and the other end of the device and another portion of the tray are located in the enclosure, d) creating a pressure difference between the two ends, e) cleaning the device with a cleaning solution, f) rinsing the device with rinse solution, g) treating the device with a chemical germicide. An apparatus for cleaning/sterilizing a device with a lumen comprises a container having at least two separated close compartments. An openable and closeable interface separates the container into the compartments. A tray is adapted to be placed in the two compartments crossing the interface for accommodating the device, so that one end of the device is in one compartment and the other end is in the other compartment. A source for creating a pressure difference is provided. A cleaning mechanism adapted to clean the device is also provided.

28 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 17. Document ID: US 6013227 A

L7: Entry 17 of 21 File: USPT Jan 11, 2000

US-PAT-NO: 6013227
DOCUMENT-IDENTIFIER: US 6013227 A

TITLE: Lumen device reprocessor without occlusion

DATE-ISSUED: January 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Canyon	CA		

US-CL-CURRENT: 422/28; 422/292, 422/297, 422/300, 422/305, 422/33

ABSTRACT:

A method for cleaning/sterilizing a device having a lumen with at least two open ends comprises the steps of: a) providing a container having at least one enclosure and at least one interface separating the enclosure from the container, the interface having at least one opening thereon, b) placing the device across the opening with one open end in the container and another open end in the enclosure, c) generating a flow of a cleaning solution through the lumen to clean the inner surface of the lumen, d) generating a flow of rinse solution through the lumen to rinse the inner surface of the lumen, e) treating the device with a chemical germicide, and f) adjusting the opening in any of steps c) to e) to reduce the areas on surface of the device occluded by contacting with the opening. An apparatus for cleaning/sterilizing a lumen device comprises a container having a fluid port for flowing and draining a fluid in and out the container. At least one enclosure is coupled with the container for receiving part of the lumen device so that one end of the lumen device is located in the enclosure and the other end of the lumen device is located in the container. An interface separates the container and enclosure. At least one openable and closable holder sealably is coupled to the interface. A source for creating a pressure difference between the container and the enclosure. A cleaning mechanism adapted to clean the device in the container or enclosure is also provided.

30 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Drawi Desc | Image

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☐ 18. Document ID: US 5271805 A

L7: Entry 18 of 21 File: USPT Dec 21, 1993

US-PAT-NO: 5271805
DOCUMENT-IDENTIFIER: US 5271805 A

TITLE: Method and apparatus for waste paper treatment

DATE-ISSUED: December 21, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stockel; Ivar H.	Naples	FL	33940	
Carlson; Willard E.	Hilton Head Island	SC	29928	

US-CL-CURRENT: 162/4; 162/55, 162/56, 162/57, 162/8, 241/16

ABSTRACT:

A method and apparatus for reclaiming cellulosic fibers from a bale containing waste papers, in which the bale is positioned in a treatment enclosure, and the enclosure is placed under a vacuum. A treating fluid is drawn into the enclosure, which penetrates the bale interior spaces, and produces a preferential swelling of uncontaminated cellulosic fibers. After the treating fluid is withdrawn from the enclosure, a slurrying fluid is passed through the bale contents, to form a fiber-fluid suspension slurry.

21 Claims, 8 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

☐ 19. Document ID: US 4045347 A

L7: Entry 19 of 21 File: USPT Aug 30, 1977

US-PAT-NO: 4045347
DOCUMENT-IDENTIFIER: US 4045347 A

TITLE: System for pollution suppression

DATE-ISSUED: August 30, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/199; 210/220, 261/76

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e. heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

Another embodiment pertains to the purification of a gas by treatment with a fluid in a flow conduit having a plug flow at its entrance containing an injection-mixing device coacting with a first high turbulence causing device and a downstream or second high turbulence causing device. The treating fluid is preferably added at the vena contracta of the first high turbulence causing device.

18 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

☐ 20. Document ID: US 4035301 A

L7: Entry 20 of 21 File: USPT Jul 12, 1977

US-PAT-NO: 4035301
DOCUMENT-IDENTIFIER: US 4035301 A
** See image for Certificate of Correction **

TITLE: System for pollution suppression

DATE-ISSUED: July 12, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/220; 137/207, 261/76

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e., heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

11 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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Term	Documents
FIRST	4694538
FIRSTS	645
FLUID	1159814
FLUIDS	253010
(6 AND (FIRST ADJ FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21
(L6 AND (FIRST FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21

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Search Results - Record(s) 21 through 21 of 21 returned.

☐ 21. Document ID: US 4035296 A

L7: Entry 21 of 21 File: USPT Jul 12, 1977

US-PAT-NO: 4035296
DOCUMENT-IDENTIFIER: US 4035296 A
** See image for Certificate of Correction **

TITLE: System for pollution suppression

DATE-ISSUED: July 12, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/151; 210/194

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e. heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

Another embodiment pertains to the purification of a gas by treatment with a fluid in a flow conduit having a plug flow at its entrance containing an injection-mixing device coacting with a first high turbulence causing device and a downstream or second high turbulence causing device. The treating fluid is preferably added at the vena contracta of the first high turbulence causing device.

The present invention also relates to a two stage oxidative system for the disinfection of material which may contain nitrogen commonly in the form of ammonia or ammonium as in the treatment of waste or sewage plant effluent by adding a primary oxidizing agent to the effluent to disinfect as well as to lower the pH of the effluent and by adding a secondary oxidizing agent to produce a synergistic disinfection system in which the distribution of ammonium and ammonia is shifted to nearly all ammonium. A desirable pH level is 7 or less with desirable primary oxidizing agents including aluminum chloride or ferric chloride with desirable secondary oxidizing agents including chlorine, chlorine dioxide, ozone as in oxygen or air, or sodium hypochlorite.

Another aspect of the present invention relates to the nitrification of ammonia in the form of secondary effluent from a waste treatment system wherein the ammonia is converted to nitrates in a tertiary unit operation so that the effluent has low ammonia

content.

A rotary distributor arm comprising improved distribution nozzles and flow control accomplished by a gradual taper of the arm itself is defined which ensures a uniform flow distribution across the full radius of the distributing medium so that uniformity and optimum economy and efficiency are achieved with respect to the trickling filter itself because a uniform fluid flow is distributed across the entire top surface thereof.

The invention further contemplates an injection-mixing system immersed in a contact tank utilizing efficient mixing devices for disinfection and a unique flowthrough arrangement into an influent conduit as well as through the contact tank whereby maximum dispersion of the disinfectant throughout the influent with maximum economy is achieved.

The invention further relates to an activated sludge aeration system in which desirably there are no stagnant areas and maximum diffusion is achieved, efficiently.

The invention further relates to a continuous treatment of a fluid by chemical reaction with a treating fluid as in an in-line reactor.

The invention also relates to the efficient production of ozone by varying the oxygen feed rate, voltage, current or frequency or the ozone in oxygen concentration.

The invention also relates to the enrichment of oxygen by adding air to a high-pressure holding tank containing a liquid in which oxygen is soluble, bleeding off nitrogen-rich gas and desorbing gas from the liquid at a lower pressure.

8 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

Term	Documents
FIRST	4694538
FIRSTS	645
FLUID	1159814
FLUIDS	253010
(6 AND (FIRST ADJ FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21
(L6 AND (FIRST FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21

WEST Search History

DATE: Wednesday, July 02, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L13	L12 and distilling	11	L13
L12	L11 and heating	11	L12
L11	L10 and removing	11	L11
L10	L9 and recovering	11	L10
L9	L8 and (non-condensable gas)	11	L9
L8	L7 and (second fluid)	21	L8
L7	L6 and (first fluid)	21	L7
L6	L5 and (reducing pressure)	88	L6
L5	L4 and sealing	2070	L5
L4	L3 and chamber	7727	L4
L3	L2 and placing	24334	L3
L2	object and treating	169579	L2
L1	closed solvent processing system	3	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 6418942 B1

L1: Entry 1 of 3 File: USPT Jul 16, 2002

US-PAT-NO: 6418942
DOCUMENT-IDENTIFIER: US 6418942 B1

TITLE: Solvent and aqueous decompression processing system

DATE-ISSUED: July 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gray; Donald	Warwick	RI	02818	
Frederick; Charlotte	Tempe	AZ	85284	

US-CL-CURRENT: 134/1.3; 134/10, 134/11, 134/21, 134/22.12

ABSTRACT:

An enclosed solvent and aqueous decompression processing system includes a chamber for holding an object to be processed. At least one vacuum pump applies a negative gauge pressure to the chamber to remove air and other non-condensable gases. Means are provided for introducing a solvent to the evacuated chamber to treat the object contained within. Treatment may be in the form of coating, etching, deposition, cleaning, stripping, plating, adhesion, dissolving, filtering or any other process in which material is removed or deposited on a solid surface by transfer from or to a liquid phase. A first system removes pressure from the chamber to produce vapor bubbles for processing. A second system increases pressure by ceasing to apply vacuum or adding non-condensable gases. The system includes recovery of the solvent from the chamber and object. A method of treating an object in an enclosed solvent processing system, comprises the steps of: isolating a solvent supply system with respect to the chamber; evacuating the chamber to remove air and other non-condensable gases; isolating the chamber with respect to atmosphere; introducing a solvent into the evacuated chamber; processing the object by cyclically alternating vacuum and pressure in the chamber; recovering the solvent introduced into the chamber; sealing the chamber with respect to the solvent supply system; introducing air into the chamber for sweeping further solvent on the object and within the chamber; and removing the treated object.

11 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5343885 A

L1: Entry 2 of 3 File: USPT Sep 6, 1994

US-PAT-NO: 5343885
DOCUMENT-IDENTIFIER: US 5343885 A

TITLE: Vacuum air lock for a closed perimeter solvent conservation system

DATE-ISSUED: September 6, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Grant; David C. H.	Selbyville	DE		

US-CL-CURRENT: 134/105; 134/200, 134/201, 312/1

ABSTRACT:

A vacuum air lock assembly for transferring an article into an enclosure for treating the article with a solvent, the enclosure including a door for admitting the article into or out of the enclosure, the assembly including a chamber mounted on the enclosure and having an outer door, the chamber being sealed to the enclosure for transferring the article from the chamber through the enclosure door into the enclosure, a vacuum pump for drawing a vacuum in the chamber and discharging the air to atmosphere, the chamber being connected to the enclosure to break the vacuum in the chamber with solvent vapor from the enclosure, the article is transferred into the enclosure through the enclosure door for treatment and returned to the chamber after treatment, and the solvent vapor in the chamber is returned to the enclosure chamber through the vacuum pump and the vacuum in the chamber is broken to atmosphere.

26 Claims, 3 Drawing figures
Exemplary Claim Number: 8
Number of Drawing Sheets: 3

☐ 3. Document ID: US 6418942 B1

L1: Entry 3 of 3 File: DWPI Jul 16, 2002

DERWENT-ACC-NO: 2002-597980
DERWENT-WEEK: 200264
COPYRIGHT 2003 DERWENT INFORMATION LTD
TITLE: Object treatment method for closed solvent processing system involves processing object by cyclically alternating vacuum and pressure in chamber and introducing solvent into sealed chamber

INVENTOR: FREDERICK, C; GRAY, D

PRIORITY-DATA: 2000US-0522587 (March 10, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6418942 B1	July 16, 2002		008	B08B005/00

INT-CL (IPC): B08 B 5/00

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Term	Documents
CLOSED	1503135
CLOSEDS	4
SOLVENT	929277
SOLVENTS	368715
PROCESSING	1969166
PROCESSINGS	22348
SYSTEM	4680757
SYSTEMS	1510110
(CLOSED ADJ SOLVENT ADJ PROCESSING ADJ SYSTEM).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	3
(CLOSED SOLVENT PROCESSING SYSTEM).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	3

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L1: Entry 3 of 3 File: DWPI Jul 16, 2002

DERWENT-ACC-NO: 2002-597980
DERWENT-WEEK: 200264
COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: Object treatment method for closed solvent processing system involves processing object by cyclically alternating vacuum and pressure in chamber and introducing solvent into sealed chamber

INVENTOR: FREDERICK, C; GRAY, D

PATENT-ASSIGNEE: FREDERICK C (FREDI), GRAY D (GRAYI)

PRIORITY-DATA: 2000US-0522587 (March 10, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6418942 B1	July 16, 2002		008	B08B005/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6418942B1	March 10, 2000	2000US-0522587	

INT-CL (IPC): B08 B 5/00

ABSTRACTED-PUB-NO: US 6418942B
BASIC-ABSTRACT:

NOVELTY - The method involves isolating a solvent supply system with respect to the chamber, evacuating the chamber to remove air and other non-condensable gases, isolating the chamber with respect to atmosphere, introducing a solvent into the evacuated chamber, and processing the object by cyclically alternating vacuum and pressure in the chamber. The solvent introduced into the chamber is recovered and the chamber is sealed with respect to the solvent supply system. Air is introduced into the chamber for sweeping further solvent on the object and within the chamber and finally the treated object is removed.

USE - For treating objects in closed solvent processing system.

ADVANTAGE - Enhances the transf4er of materials to or from a liquid to a solid surface and enables solvent recovery and limits hazardous emissions.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic illustration of the system.

ABSTRACTED-PUB-NO: US 6418942B
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2/2

DERWENT-CLASS: P43

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Search Results - Record(s) 11 through 11 of 11 returned.

☐ 11. Document ID: US 20030079877 A1

L13: Entry 11 of 11 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030079877
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030079877 A1

TITLE: In situ thermal processing of a relatively impermeable formation in a reducing environment

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively low permeability formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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Term	Documents
DISTILLING	43092
DISTILLINGS	1
(12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11
(L12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11

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Search Results - Record(s) 1 through 10 of 11 returned.

☐ 1. Document ID: US 20030116315 A1

L13: Entry 1 of 11 File: PGPB Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030116315
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030116315 A1

TITLE: In situ thermal processing of a relatively permeable formation

PUBLICATION-DATE: June 26, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Messier, Margaret Ann	Calgary	TX	CA	
Roberts, Bruce Edmunds	Calgary	TX	CA	
Sumnu-Dindoruk, Meliha Deniz	Houston		US	
Vinegar, Harold J.	Houston		US	

US-CL-CURRENT: 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a selected section of the formation. The heat provided to the selected section may pyrolyze at least some hydrocarbons in a lower portion of the formation. A mixture of hydrocarbons may be produced from an upper portion of the formation. The mixture of hydrocarbons may include at least some pyrolyzed hydrocarbons from the lower portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20030111223 A1

L13: Entry 2 of 11 File: PGPB Jun 19, 2003

PGPUB-DOCUMENT-NUMBER: 20030111223
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030111223 A1

TITLE: In situ thermal processing of an oil shale formation using horizontal heat sources

PUBLICATION-DATE: June 19, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rouffignac, Eric Pierre de	Houston	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
Fowler, Thomas David	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/256; 166/302, 166/59, 166/60

ABSTRACT:

An oil shale formation may be treated using an in situ thermal process. Heat may be provided to a portion of the formation from one or more heat sources having a horizontal orientation in the formation. Heat may be allowed to transfer from the heat sources to a section of the formation. Hydrocarbons, H.sub.2, and/or other formation fluids may be produced from the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 3. Document ID: US 20030102130 A1

L13: Entry 3 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102130
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102130 A1

TITLE: In situ thermal recovery from a relatively permeable formation with quality control

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/302; 166/303, 166/60

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture may be produced from the selected section. A quality of the produced mixture may be controlled by varying a location for producing the mixture.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20030102126 A1

L13: Entry 4 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102126
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102126 A1

TITLE: In situ thermal recovery from a relatively permeable formation with controlled production rate

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. A production rate of the mixture may be controlled to adjust the time that at least some hydrocarbons are exposed to pyrolysis temperatures in the formation in order to produce hydrocarbons of a selected quality in the mixture.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 5. Document ID: US 20030102125 A1

L13: Entry 5 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102125
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102125 A1

TITLE: In situ thermal processing of a relatively permeable formation in a reducing environment

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/266

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 20030102124 A1

L13: Entry 6 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102124
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102124 A1

TITLE: In situ thermal processing of a blending agent from a relatively permeable formation

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a selected section of the formation. The heat provided to the selected section may pyrolyze at least some hydrocarbons in the selected section. A blending agent may be produced from the selected section. A portion of the blending agent may be adapted to blend with a liquid to produce a mixture with a selected property.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

7. Document ID: US 20030100451 A1

L13: Entry 7 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100451
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100451 A1

TITLE: In situ thermal recovery from a relatively permeable formation with backproduction through a heater wellbore

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Messier, Margaret Ann	Calgary	TX	CA	
Crane, Steven Dexter	Richardson	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Roberts, Bruce Edmunds	Calgary	TX	CA	
Vinegar, Harold J.	Houston		US	
Wellington, Scott Lee	Bellaire		US	

US-CL-CURRENT: 507/100

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A temperature proximate a selected portion of a heater well may be selectively limited to inhibit coke formation at or near the selected portion. A mixture of at least some hydrocarbons may be produced through the selected portion of the heater well.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

8. Document ID: US 20030098605 A1

L13: Entry 8 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030098605
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030098605 A1

TITLE: In situ thermal recovery from a relatively permeable formation

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 299/14; 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from a first set of heat sources to a first section of the formation. The heat provided to the first section may pyrolyze at least some hydrocarbons in the first section. Heat may also be provided from a second set of heat sources to a second section of the formation. The heat provided to the second section may mobilize at least some hydrocarbons in the second section. A portion of the hydrocarbons from the second section may be induced to flow into the first section. A mixture of hydrocarbons may be produced from the formation. The produced mixture may included at least some pyrolyzed hydrocarbons.

☐ 9. Document ID: US 20030098149 A1

L13: Entry 9 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030098149
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030098149 A1

TITLE: In situ thermal recovery from a relatively permeable formation using gas to increase mobility

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Crane, Steven Dexter	Richardson	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Messier, Margaret Ann	Alberta	TX	CA	
Roberts, Bruce Edmunds	Alberta	TX	CA	
Sumnu-Dindoruk, Meliha Deniz	Houston		US	
Vinegar, Harold J.	Houston		US	

US-CL-CURRENT: 166/52

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may reduce the viscosity of at least some hydrocarbons within the selected section. A gas may be produced to the selected section of the formation. The gas may produce a flow of hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section.

10. Document ID: US 20030080604 A1

L13: Entry 10 of 11 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030080604
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030080604 A1

TITLE: In situ thermal processing and inhibiting migration of fluids into or out of an in situ oil shale formation

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Aymond, Dannie Antoine JR.	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
McKinzie, Billy John II	Houston	TX	US	
Palfreyman, Bruce Donald	Houston	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Ward, John Michael	Katy	TX	US	
Watkins, Ronnie Wade	Cypress	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 299/14; 166/256, 166/272.1

ABSTRACT:

An oil shale formation may be treated using an in situ thermal process. Fluid migration into and/or out of a treatments area in the formation may be inhibited. In some embodiments, a barrier may be used to inhibit migration of fluids into and/or out of the treatment area. Heat may be provided to the treatment area and subsequently, hydrocarbons, H.sub.2, and/or other formation fluids may be produced from the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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Term	Documents
DISTILLING	43092
DISTILLINGS	1
(12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11
(L12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11

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Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 6418942 B1

L1: Entry 1 of 3 File: USPT Jul 16, 2002

US-PAT-NO: 6418942
DOCUMENT-IDENTIFIER: US 6418942 B1

TITLE: Solvent and aqueous decompression processing system

DATE-ISSUED: July 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gray; Donald	Warwick	RI	02818	
Frederick; Charlotte	Tempe	AZ	85284	

US-CL-CURRENT: 134/1.3; 134/10, 134/11, 134/21, 134/22.12

ABSTRACT:

An enclosed solvent and aqueous decompression processing system includes a chamber for holding an object to be processed. At least one vacuum pump applies a negative gauge pressure to the chamber to remove air and other non-condensable gases. Means are provided for introducing a solvent to the evacuated chamber to treat the object contained within. Treatment may be in the form of coating, etching, deposition, cleaning, stripping, plating, adhesion, dissolving, filtering or any other process in which material is removed or deposited on a solid surface by transfer from or to a liquid phase. A first system removes pressure from the chamber to produce vapor bubbles for processing. A second system increases pressure by ceasing to apply vacuum or adding non-condensable gases. The system includes recovery of the solvent from the chamber and object. A method of treating an object in an enclosed solvent processing system, comprises the steps of: isolating a solvent supply system with respect to the chamber; evacuating the chamber to remove air and other non-condensable gases; isolating the chamber with respect to atmosphere; introducing a solvent into the evacuated chamber; processing the object by cyclically alternating vacuum and pressure in the chamber; recovering the solvent introduced into the chamber; sealing the chamber with respect to the solvent supply system; introducing air into the chamber for sweeping further solvent on the object and within the chamber; and removing the treated object.

11 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5343885 A

L1: Entry 2 of 3 File: USPT Sep 6, 1994

US-PAT-NO: 5343885
DOCUMENT-IDENTIFIER: US 5343885 A

TITLE: Vacuum air lock for a closed perimeter solvent conservation system

DATE-ISSUED: September 6, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Grant; David C. H.	Selbyville	DE		

US-CL-CURRENT: 134/105; 134/200, 134/201, 312/1

ABSTRACT:

A vacuum air lock assembly for transferring an article into an enclosure for treating the article with a solvent, the enclosure including a door for admitting the article into or out of the enclosure, the assembly including a chamber mounted on the enclosure and having an outer door, the chamber being sealed to the enclosure for transferring the article from the chamber through the enclosure door into the enclosure, a vacuum pump for drawing a vacuum in the chamber and discharging the air to atmosphere, the chamber being connected to the enclosure to break the vacuum in the chamber with solvent vapor from the enclosure, the article is transferred into the enclosure through the enclosure door for treatment and returned to the chamber after treatment, and the solvent vapor in the chamber is returned to the enclosure chamber through the vacuum pump and the vacuum in the chamber is broken to atmosphere.

26 Claims, 3 Drawing figures
Exemplary Claim Number: 8
Number of Drawing Sheets: 3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 3. Document ID: US 6418942 B1

L1: Entry 3 of 3 File: DWPI Jul 16, 2002

DERWENT-ACC-NO: 2002-597980
DERWENT-WEEK: 200264
COPYRIGHT 2003 DERWENT INFORMATION LTD
TITLE: Object treatment method for closed solvent processing system involves processing object by cyclically alternating vacuum and pressure in chamber and introducing solvent into sealed chamber

INVENTOR: FREDERICK, C; GRAY, D

PRIORITY-DATA: 2000US-0522587 (March 10, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6418942 B1	July 16, 2002		008	B08B005/00

INT-CL (IPC): B08 B 5/00

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Clip Img | Image

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Term	Documents
CLOSED	1503135
CLOSEDS	4
SOLVENT	929277
SOLVENTS	368715
PROCESSING	1969166
PROCESSINGS	22348
SYSTEM	4680757
SYSTEMS	1510110
(CLOSED ADJ SOLVENT ADJ PROCESSING ADJ SYSTEM).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	3
(CLOSED SOLVENT PROCESSING SYSTEM).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	3

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L1: Entry 3 of 3 File: DWPI Jul 16, 2002

DERWENT-ACC-NO: 2002-597980
DERWENT-WEEK: 200264
COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: Object treatment method for closed solvent processing system involves processing object by cyclically alternating vacuum and pressure in chamber and introducing solvent into sealed chamber

INVENTOR: FREDERICK, C; GRAY, D

PATENT-ASSIGNEE: FREDERICK C (FREDI), GRAY D (GRAYI)

PRIORITY-DATA: 2000US-0522587 (March 10, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6418942 B1	July 16, 2002		008	B08B005/00

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
US 6418942B1	March 10, 2000	2000US-0522587	

INT-CL (IPC): B08 B 5/00

ABSTRACTED-PUB-NO: US 6418942B
BASIC-ABSTRACT:

NOVELTY - The method involves isolating a solvent supply system with respect to the chamber, evacuating the chamber to remove air and other non-condensable gases, isolating the chamber with respect to atmosphere, introducing a solvent into the evacuated chamber, and processing the object by cyclically alternating vacuum and pressure in the chamber. The solvent introduced into the chamber is recovered and the chamber is sealed with respect to the solvent supply system. Air is introduced into the chamber for sweeping further solvent on the object and within the chamber and finally the treated object is removed.

USE - For treating objects in closed solvent processing system.

ADVANTAGE - Enhances the transf4er of materials to or from a liquid to a solid surface and enables solvent recovery and limits hazardous emissions.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic illustration of the system.

ABSTRACTED-PUB-NO: US 6418942B
EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.2/2

DERWENT-CLASS: P43

WEST

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Search Results - Record(s) 11 through 11 of 11 returned.

☐ 11. Document ID: US 20030079877 A1

L13: Entry 11 of 11 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030079877
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030079877 A1

TITLE: In situ thermal processing of a relatively impermeable formation in a reducing environment

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively low permeability formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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Term	Documents
DISTILLING	43092
DISTILLINGS	1
(12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11
(L12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11

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Search Results - Record(s) 1 through 10 of 11 returned.

☐ 1. Document ID: US 20030116315 A1

L13: Entry 1 of 11 File: PGPB Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030116315
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030116315 A1

TITLE: In situ thermal processing of a relatively permeable formation

PUBLICATION-DATE: June 26, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Messier, Margaret Ann	Calgary	TX	CA	
Roberts, Bruce Edmunds	Calgary	TX	CA	
Sumnu-Dindoruk, Meliha Deniz	Houston		US	
Vinegar, Harold J.	Houston		US	

US-CL-CURRENT: 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a selected section of the formation. The heat provided to the selected section may pyrolyze at least some hydrocarbons in a lower portion of the formation. A mixture of hydrocarbons may be produced from an upper portion of the formation. The mixture of hydrocarbons may include at least some pyrolyzed hydrocarbons from the lower portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20030111223 A1

L13: Entry 2 of 11 File: PGPB Jun 19, 2003

PGPUB-DOCUMENT-NUMBER: 20030111223
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030111223 A1

TITLE: In situ thermal processing of an oil shale formation using horizontal heat sources

PUBLICATION-DATE: June 19, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rouffignac, Eric Pierre de	Houston	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
Fowler, Thomas David	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/256; 166/302, 166/59, 166/60

ABSTRACT:

An oil shale formation may be treated using an in situ thermal process. Heat may be provided to a portion of the formation from one or more heat sources having a horizontal orientation in the formation. Heat may be allowed to transfer from the heat sources to a section of the formation. Hydrocarbons, H.sub.2, and/or other formation fluids may be produced from the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 3. Document ID: US 20030102130 A1

L13: Entry 3 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102130
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102130 A1

TITLE: In situ thermal recovery from a relatively permeable formation with quality control

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/302; 166/303, 166/60

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture may be produced from the selected section. A quality of the produced mixture may be controlled by varying a location for producing the mixture.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20030102126 A1

L13: Entry 4 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102126
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102126 A1

TITLE: In situ thermal recovery from a relatively permeable formation with controlled production rate

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. A production rate of the mixture may be controlled to adjust the time that at least some hydrocarbons are exposed to pyrolysis temperatures in the formation in order to produce hydrocarbons of a selected quality in the mixture.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 5. Document ID: US 20030102125 A1

L13: Entry 5 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102125
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102125 A1

TITLE: In situ thermal processing of a relatively permeable formation in a reducing environment

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/266

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 20030102124 A1

L13: Entry 6 of 11 File: PGPB Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102124
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102124 A1

TITLE: In situ thermal processing of a blending agent from a relatively permeable formation

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a selected section of the formation. The heat provided to the selected section may pyrolyze at least some hydrocarbons in the selected section. A blending agent may be produced from the selected section. A portion of the blending agent may be adapted to blend with a liquid to produce a mixture with a selected property.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 7. Document ID: US 20030100451 A1

L13: Entry 7 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030100451
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030100451 A1

TITLE: In situ thermal recovery from a relatively permeable formation with backproduction through a heater wellbore

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Messier, Margaret Ann	Calgary	TX	CA	
Crane, Steven Dexter	Richardson	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Roberts, Bruce Edmunds	Calgary	TX	CA	
Vinegar, Harold J.	Houston		US	
Wellington, Scott Lee	Bellaire		US	

US-CL-CURRENT: 507/100

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A temperature proximate a selected portion of a heater well may be selectively limited to inhibit coke formation at or near the selected portion. A mixture of at least some hydrocarbons may be produced through the selected portion of the heater well.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 8. Document ID: US 20030098605 A1

L13: Entry 8 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030098605
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030098605 A1

TITLE: In situ thermal recovery from a relatively permeable formation

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Sumnu-Dindoruk, Meliha Deniz	Houston	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 299/14; 166/256

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from a first set of heat sources to a first section of the formation. The heat provided to the first section may pyrolyze at least some hydrocarbons in the first section. Heat may also be provided from a second set of heat sources to a second section of the formation. The heat provided to the second section may mobilize at least some hydrocarbons in the second section. A portion of the hydrocarbons from the second section may be induced to flow into the first section. A mixture of hydrocarbons may be produced from the formation. The produced mixture may included at least some pyrolyzed hydrocarbons.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 9. Document ID: US 20030098149 A1

L13: Entry 9 of 11 File: PGPB May 29, 2003

PGPUB-DOCUMENT-NUMBER: 20030098149
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030098149 A1

TITLE: In situ thermal recovery from a relatively permeable formation using gas to increase mobility

PUBLICATION-DATE: May 29, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Crane, Steven Dexter	Richardson	TX	US	
Rouffignac, Eric Pierre de	Houston	TX	US	
Karanikas, John Michael	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
Messier, Margaret Ann	Alberta	TX	CA	
Roberts, Bruce Edmunds	Alberta	TX	CA	
Sumnu-Dindoruk, Meliha Deniz	Houston		US	
Vinegar, Harold J.	Houston		US	

US-CL-CURRENT: 166/52

ABSTRACT:

A method for treating a relatively permeable formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may reduce the viscosity of at least some hydrocarbons within the selected section. A gas may be produced to the selected section of the formation. The gas may produce a flow of hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 10. Document ID: US 20030080604 A1

L13: Entry 10 of 11 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030080604
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030080604 A1

TITLE: In situ thermal processing and inhibiting migration of fluids into or out of an in situ oil shale formation

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vinegar, Harold J.	Houston	TX	US	
Aymond, Dannie Antoine JR.	Houston	TX	US	
Maher, Kevin Albert	Bellaire	TX	US	
McKinzie, Billy John II	Houston	TX	US	
Palfreyman, Bruce Donald	Houston	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Ward, John Michael	Katy	TX	US	
Watkins, Ronnie Wade	Cypress	TX	US	
Wellington, Scott Lee	Bellaire	TX	US	

US-CL-CURRENT: 299/14; 166/256, 166/272.1

ABSTRACT:

An oil shale formation may be treated using an in situ thermal process. Fluid migration into and/or out of a treatments area in the formation may be inhibited. In some embodiments, a barrier may be used to inhibit migration of fluids into and/or out of the treatment area. Heat may be provided to the treatment area and subsequently, hydrocarbons, H.sub.2, and/or other formation fluids may be produced from the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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Term	Documents
DISTILLING	43092
DISTILLINGS	1
(12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11
(L12 AND DISTILLING).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	11

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Search Results - Record(s) 11 through 20 of 21 returned.

☐ 11. Document ID: US 20030079877 A1

L7: Entry 11 of 21 File: PGPB May 1, 2003

PGPUB-DOCUMENT-NUMBER: 20030079877
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030079877 A1

TITLE: In situ thermal processing of a relatively impermeable formation in a reducing environment

PUBLICATION-DATE: May 1, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Wellington, Scott Lee	Bellaire	TX	US	
Berchenko, Ilya Emil	Friendswood	TX	US	
de Rouffignac, Eric Pierre	Houston	TX	US	
Fowler, Thomas David	Houston	TX	US	
Ryan, Robert Charles	Houston	TX	US	
Shahin, Gordon Thomas JR.	Bellaire	TX	US	
Stegemeier, George Leo	Houston	TX	US	
Vinegar, Harold J.	Houston	TX	US	
Zhang, Etuan	Houston	TX	US	

US-CL-CURRENT: 166/272.1

ABSTRACT:

A method for treating a relatively low permeability formation containing heavy hydrocarbons in situ may include providing heat from one or more heat sources to a portion of the formation. The heat may be allowed to transfer from the heat sources to a selected section of the formation. The transferred heat may pyrolyze at least some hydrocarbons within the selected section. A mixture of hydrocarbons may be produced from the selected section. In some embodiments, a reducing environment may be maintained in a portion of the formation.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 12. Document ID: US 20010016176 A1

L7: Entry 12 of 21 File: PGPB Aug 23, 2001

PGPUB-DOCUMENT-NUMBER: 20010016176
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010016176 A1

TITLE: Sterilization process without sterile rinse

PUBLICATION-DATE: August 23, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Lin, Szu-Min	Laguna Hills	CA	US	
Jacobs, Paul Taylor	Bicknell	CA	US	

US-CL-CURRENT: 422/33; 422/28, 422/292, 422/295, 422/297

ABSTRACT:

An apparatus for sterilizing or disinfecting a device has a chamber, a source of sterilant or disinfectant and ports for admitting and exhausting the sterilant or disinfectant but lacks a source of sterile rinse. A related method similarly lacks the step of rinsing with a sterile solvent yet leaves the device essentially free of the sterilant or disinfectant. Preferably the sterilant or disinfectant is removed from the device by vaporizing it and drawing it out of the chamber.

☐ 13. Document ID: US 6423266 B1

L7: Entry 13 of 21 File: USPT Jul 23, 2002

US-PAT-NO: 6423266
DOCUMENT-IDENTIFIER: US 6423266 B1

TITLE: Special container for cleaning or sterilizing lumen devices

DATE-ISSUED: July 23, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Choperena; Alfredo M.	San Juan Capistrano	CA		
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/294, 422/297, 422/300

ABSTRACT:

The invention is directed to a method and an apparatus for cleaning or sterilizing a device having a lumen. The method comprises the steps of: a) providing a container having at least one interface separating the container into two or more compartments; b) placing the device across the interface with one open end of the device in one of the compartments and another open end in another compartment; and c) adjusting the interface to at least partially seal around the device, and generating a flow of a cleaning solution, rinse solution, or chemical germicide through the lumen to clean or sterilize the inner surface of the device.

32 Claims, 32 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 19

☐ 14. Document ID: US 6203756 B1

L7: Entry 14 of 21 File: USPT Mar 20, 2001

US-PAT-NO: 6203756
DOCUMENT-IDENTIFIER: US 6203756 B1

TITLE: Integrated cleaning sterilization process

DATE-ISSUED: March 20, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/300, 422/31

ABSTRACT:

A method for cleaning and sterilizing a medical device comprises the steps of: a) placing the device into a container, b) cleaning the device with a cleaning solution, c) rinsing the device with rinse solution, d) treating the device with a liquid sterilant, e) vaporizing the liquid sterilant in the container thereby simultaneously sterilizing and drying the device, and providing a sterile, dry product without further rinsing. The method further comprises retaining a predetermined amount of the liquid sterilant in the container prior to step e). Step e) can be conducted under a diffusion restricted environment, or by reducing pressure to a first predetermined pressure followed by further reducing the first pressure to a predetermined second pressure, or at controlled pump down rate.

27 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 15. Document ID: US 6187266 B1

L7: Entry 15 of 21 File: USPT Feb 13, 2001

US-PAT-NO: 6187266
DOCUMENT-IDENTIFIER: US 6187266 B1

TITLE: Integrated cleaning/sterilization process with lumen devices

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/33; 422/28, 422/300, 422/31

ABSTRACT:

A method for cleaning and sterilizing a medical device having a lumen with at least two open ends comprises the steps of: a) providing a container having at least one enclosure separated from the container by an interface, b) placing the device into the container and enclosure across the interface in such a way that one end of the lumen of the device is located in the container and the other end in the enclosure, c) generating a flow of a cleaning solution through the lumen to clean the inner surface of the lumen, d) generating a flow of rinse solution through the lumen to rinse the

inner surface of the lumen, e) treating the device with a liquid sterilant, f) vaporizing the liquid sterilant in the container or enclosure thereby simultaneously sterilizing and drying the device, and providing a sterile, dry product without further rinsing. In the method, step f) can be conducted under a diffusion restricted environment, or by reducing pressure to a first predetermined pressure followed by further reducing the first pressure to a predetermined second pressure, or at controlled pump down rate. The method further comprises retaining a predetermined amount of the liquid sterilant in the container and enclosure prior to step f).

28 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 16. Document ID: US 6015529 A

L7: Entry 16 of 21 File: USPT Jan 18, 2000

US-PAT-NO: 6015529
DOCUMENT-IDENTIFIER: US 6015529 A

TITLE: Tray/container system for cleaning/sterilization processes

DATE-ISSUED: January 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Trabuco Canyon	CA		

US-CL-CURRENT: 422/28; 422/292, 422/295, 422/297, 422/300, 422/33

ABSTRACT:

A method for cleaning/sterilizing a medical device with a lumen comprises the steps of: a) providing a container having one enclosure and one openable and closeable interface separating the container and the enclosure, b) placing the device on a tray, c) placing the tray into the container and enclosure so that one end of the device and a portion of the tray are located in the container and the other end of the device and another portion of the tray are located in the enclosure, d) creating a pressure difference between the two ends, e) cleaning the device with a cleaning solution, f) rinsing the device with rinse solution, g) treating the device with a chemical germicide. An apparatus for cleaning/sterilizing a device with a lumen comprises a container having at least two separated close compartments. An openable and closeable interface separates the container into the compartments. A tray is adapted to be placed in the two compartments crossing the interface for accommodating the device, so that one end of the device is in one compartment and the other end is in the other compartment. A source for creating a pressure difference is provided. A cleaning mechanism adapted to clean the device is also provided.

28 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☐ 17. Document ID: US 6013227 A

L7: Entry 17 of 21 File: USPT Jan 11, 2000

US-PAT-NO: 6013227
DOCUMENT-IDENTIFIER: US 6013227 A

TITLE: Lumen device reprocessor without occlusion

DATE-ISSUED: January 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Szu-Min	Laguna Hills	CA		
Jacobs; Paul Taylor	Canyon	CA		

US-CL-CURRENT: 422/28; 422/292, 422/297, 422/300, 422/305, 422/33

ABSTRACT:

A method for cleaning/sterilizing a device having a lumen with at least two open ends comprises the steps of: a) providing a container having at least one enclosure and at least one interface separating the enclosure from the container, the interface having at least one opening thereon, b) placing the device across the opening with one open end in the container and another open end in the enclosure, c) generating a flow of a cleaning solution through the lumen to clean the inner surface of the lumen, d) generating a flow of rinse solution through the lumen to rinse the inner surface of the lumen, e) treating the device with a chemical germicide, and f) adjusting the opening in any of steps c) to e) to reduce the areas on surface of the device occluded by contacting with the opening. An apparatus for cleaning/sterilizing a lumen device comprises a container having a fluid port for flowing and draining a fluid in and out the container. At least one enclosure is coupled with the container for receiving part of the lumen device so that one end of the lumen device is located in the enclosure and the other end of the lumen device is located in the container. An interface separates the container and enclosure. At least one openable and closable holder sealably is coupled to the interface. A source for creating a pressure difference between the container and the enclosure. A cleaning mechanism adapted to clean the device in the container or enclosure is also provided.

30 Claims, 27 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

☐ 18. Document ID: US 5271805 A

L7: Entry 18 of 21 File: USPT Dec 21, 1993

US-PAT-NO: 5271805
DOCUMENT-IDENTIFIER: US 5271805 A

TITLE: Method and apparatus for waste paper treatment

DATE-ISSUED: December 21, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stockel; Ivar H.	Naples	FL	33940	
Carlson; Willard E.	Hilton Head Island	SC	29928	

US-CL-CURRENT: 162/4; 162/55, 162/56, 162/57, 162/8, 241/16

ABSTRACT:

A method and apparatus for reclaiming cellulosic fibers from a bale containing waste papers, in which the bale is positioned in a treatment enclosure, and the enclosure is placed under a vacuum. A treating fluid is drawn into the enclosure, which penetrates the bale interior spaces, and produces a preferential swelling of uncontaminated cellulosic fibers. After the treating fluid is withdrawn from the enclosure, a slurrying fluid is passed through the bale contents, to form a fiber-fluid suspension slurry.

21 Claims, 8 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

☐ 19. Document ID: US 4045347 A

L7: Entry 19 of 21 File: USPT Aug 30, 1977

US-PAT-NO: 4045347
DOCUMENT-IDENTIFIER: US 4045347 A

TITLE: System for pollution suppression

DATE-ISSUED: August 30, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/199; 210/220, 261/76

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e. heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

Another embodiment pertains to the purification of a gas by treatment with a fluid in a flow conduit having a plug flow at its entrance containing an injection-mixing device coacting with a first high turbulence causing device and a downstream or second high turbulence causing device. The treating fluid is preferably added at the vena contracta of the first high turbulence causing device.

18 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

☐ 20. Document ID: US 4035301 A

L7: Entry 20 of 21 File: USPT Jul 12, 1977

US-PAT-NO: 4035301
DOCUMENT-IDENTIFIER: US 4035301 A
**** See image for Certificate of Correction ****

TITLE: System for pollution suppression

DATE-ISSUED: July 12, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/220; 137/207, 261/76

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e., heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

11 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

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Term	Documents
FIRST	4694538
FIRSTS	645
FLUID	1159814
FLUIDS	253010
(6 AND (FIRST ADJ FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21
(L6 AND (FIRST FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21

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Search Results - Record(s) 21 through 21 of 21 returned.

☐ 21. Document ID: US 4035296 A

L7: Entry 21 of 21 File: USPT Jul 12, 1977

US-PAT-NO: 4035296
DOCUMENT-IDENTIFIER: US 4035296 A
** See image for Certificate of Correction **

TITLE: System for pollution suppression

DATE-ISSUED: July 12, 1977

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Armstrong; Edward T.	Butler	NJ		

US-CL-CURRENT: 210/151; 210/194

ABSTRACT:

A surge suppression system for dampening surge pressures or pipe hammer by introducing a gas into a flow conduit in such an amount that the introduced gas is in excess of that required to saturate the liquid. Preferably, the gases are those which are relatively inert or not unduly reactive and which possess relatively low saturation levels with respect to the liquid. Desirably, the gas is added through a member to the flow conduit in a vicinity of high turbulence. The surge suppression system can be utilized in generally any liquid system and particularly in a liquid transmission system.

Another embodiment pertains to a scrubber or washer for generally purifying gases and may contain one or two stages to efficiently remove impurities as through the use of high solubility fluids, fluids which decompose contaminants or which contain or provide (i.e. heating stage) catalysts to decompose contaminants, oxidizing agents, or reducing agents. The scrubber contains a packed bed and the packing may be characterized as one where the inside hydraulic radius equals the hydraulic radius of the external flow channels. The washer or scrubber type apparatus is particularly suitable for treating (purifying) materials such as ozone utilized in a deodorizing or disinfecting system.

Another embodiment pertains to the purification of a gas by treatment with a fluid in a flow conduit having a plug flow at its entrance containing an injection-mixing device coacting with a first high turbulence causing device and a downstream or second high turbulence causing device. The treating fluid is preferably added at the vena contracta of the first high turbulence causing device.

The present invention also relates to a two stage oxidative system for the disinfection of material which may contain nitrogen commonly in the form of ammonia or ammonium as in the treatment of waste or sewage plant effluent by adding a primary oxidizing agent to the effluent to disinfect as well as to lower the pH of the effluent and by adding a secondary oxidizing agent to produce a synergistic disinfection system in which the distribution of ammonium and ammonia is shifted to nearly all ammonium. A desirable pH level is 7 or less with desirable primary oxidizing agents including aluminum chloride or ferric chloride with desirable secondary oxidizing agents including chlorine, chlorine dioxide, ozone as in oxygen or air, or sodium hypochlorite.

Another aspect of the present invention relates to the nitrification of ammonia in the form of secondary effluent from a waste treatment system wherein the ammonia is converted to nitrates in a tertiary unit operation so that the effluent has low ammonia

content.

A rotary distributor arm comprising improved distribution nozzles and flow control accomplished by a gradual taper of the arm itself is defined which ensures a uniform flow distribution across the full radius of the distributing medium so that uniformity and optimum economy and efficiency are achieved with respect to the trickling filter itself because a uniform fluid flow is distributed across the entire top surface thereof.

The invention further contemplates an injection-mixing system immersed in a contact tank utilizing efficient mixing devices for disinfection and a unique flowthrough arrangement into an influent conduit as well as through the contact tank whereby maximum dispersion of the disinfectant throughout the influent with maximum economy is achieved.

The invention further relates to an activated sludge aeration system in which desirably there are no stagnant areas and maximum diffusion is achieved, efficiently.

The invention further relates to a continuous treatment of a fluid by chemical reaction with a treating fluid as in an in-line reactor.

The invention also relates to the efficient production of ozone by varying the oxygen feed rate, voltage, current or frequency or the ozone in oxygen concentration.

The invention also relates to the enrichment of oxygen by adding air to a high-pressure holding tank containing a liquid in which oxygen is soluble, bleeding off nitrogen-rich gas and desorbing gas from the liquid at a lower pressure.

8 Claims, 41 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 18

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Term	Documents
FIRST	4694538
FIRSTS	645
FLUID	1159814
FLUIDS	253010
(6 AND (FIRST ADJ FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21
(L6 AND (FIRST FLUID)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	21

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DATE: Wednesday, July 02, 2003

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L12	L11 and heating	11	L12
L11	L10 and removing	11	L11
L10	L9 and recovering	11	L10
L9	L8 and (non-condensable gas)	11	L9
L8	L7 and (second fluid)	21	L8
L7	L6 and (first fluid)	21	L7
L6	L5 and (reducing pressure)	88	L6
L5	L4 and sealing	2070	L5
L4	L3 and chamber	7727	L4
L3	L2 and placing	24334	L3
L2	object and treating	169579	L2
L1	closed solvent processing system	3	L1

END OF SEARCH HISTORY